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ABSTRACT

The LARC (Listening and Reading Comprehension) Program, an experiential based story grammar approach to listening and reading comprehension is described, and a pilot study of its effectiveness with communication handicapped children is reviewed. The LARC framework translates children's own recent experiences into sequenced story episodes which are then read aloud to children during a listening time. Questions (literal and later, inferential) follow each story, with experiences moving from oral only to oral and written. Three parts are considered: the orienting phase (listening/attending skills), question phase, and bridging phase (stories more abstract and complex). The first two parts were field tested with six Ss (5 to 7 years old) and Part III with four Ss (9 to 11 years old). Findings supported the proposition that the LARC framework is feasible and effective. (CL)

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HE LISTENING AND READING COMPREHENSION (LARC) PROGRAM

. . . EXPERIENTIAL BASED SEQUENTIAL TRAINING

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As educators, we were dismayed by the seemingly large number of young communication handicapped children who exhibit often significant deficits in listening skills and comprehension. We have observed, as one might expect, that children who do not receive adequate intervention to facilitate listening skills, often tend to exhibit similar deficits when they begin reading, and are confronted with written comprehension tasks. Numerous researchers such as Stevenson (1972) have identified listening skills as critical to the learning process. Elements of listening skills include organizational and meaning processing of incoming information and the later retrieval of important units of that information. Problems in this area appear to be linked to difficulties such as attending and relating to incoming stimuli, in organizing and making sense of the information, and in the storage and retrieval of critical elements as opposed to unnecessary details. The authors have attempted to address these problems through the development of an experiential based listening and reading comprehension program (LARC). The purpose of this paper is to discuss the elements of the program, to provide literature support for its components, and finally to describe the results of a pilot study which tested the program procedures with two groups of communication handicapped children between the ages of five and seven, and nine and eleven. Communication handicapped children who present deficits in receptive language and/or expressive language skills appear to be particularly vulnerable to comprehension difficulties.

In 1976, Kintsch offered the premise that the comprehension process is the same whether information is listened to or read. It would seem logical, therefore, that an all-encompassing comprehension program should employ a unifying, systematic strategy to facilitate both listening comprehension and, later, reading comprehension skills. A review of numerous commercially available comprehension programs, conducted by the authors, was disappointing in this respect. Furthermore, these additional shortcomings were noted:

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1) Adequate listening/attending behaviors are presumed to be present,

2) Organization of program content often lacks apparent strategies to help children organize and retrieve salient elements,

3) Program content is often far removed from the here and now reality of the children, and often appears insufficient to arouse and maintain interest and attention,

4) Most programs are designed for use on an individual rather than a small group basis,

5) Most programs lack the potential for on-going integration of their content into classroom learning units.

The LARC program was developed to counter these program limitations in a motivating and systematic way.

Several precepts guided the authors in developing the LARC's procedural elements and should be noted. It was felt that a carefully designed framework which could accommodate individual differences would be far more functional and meaningful than a pre-packaged "cookbook" program. Further, since children talk about, and understand best, things they themselves have done and are familiar with, these should be accommodated in the framework. Finally, since children better comprehend information phrased in language with which they are familiar (Spache, 1973), this language should be included in the content.

The resulting LARC program framework, after establishing adequate listening and attending skills, translates children's own recent personal experiences into uniformly sequenced story episodes. The episodes or stories are subsequently read aloud to children during a listening time each day. Questions of a literal and, later, of an inferential nature follow each story. Meaningful content is graded in levels of difficulty from simple and concrete to complex and abstract. The presented comprehension experiences move from oral only to oral and written. The organization of each story episode remains constant throughout the three program parts while increasing in length and complexity. The resulting LARC program format is as follows (see Table 1).

PART I (THE ORIENTING PHASE) establishes adequate listening/attending skills via the presentation of pictures, the use of verbal orienting directives and continuous social and token reinforcement.

THE LARC PROGRAM SEQUENCE

TABLE 1

Baseline Testing

PART I	Step 1	Step 2	Step 3
Orienting Phase	sit, fold hands, no talking (10 second trials)	same plus look at picture (10 second trials)	same plus listen to 30-50 word story and look at picture

PART II	Step 1	Step 2	Step 3	Step 4
Question Phase	look and listen plus answer yes/no questions about story event, attempt and consequence	look and listen plus answer multiple choice (2 choice) questions ("Who", "What", and "Where" forms)	look and listen plus generate answers to "wh" questions ("Who", "What", and "Where" forms)	

PART III	Step 1	Step 2	Step 3
Bridging Phase	look and listen to 100-120 word stories - generate answers about story event, plan, internal response, attempt consequence and reaction ("Who", "What", "Where", "When", "How", "Why") read story and answer written comprehension questions	same plus answer inferential questions	same plus read commercially available, complementary story - answer written comprehension questions

Post Testing

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PART II (THE QUESTION PHASE) introduces two simple, single episode stories based on experiences the children in the group have had earlier in the day. A teacher-drawn picture depicting the story episode accompanies each reading. Questions about the event, the attempt and the consequence are gradually built in, in the following sequence:

1) Yes/No content questions

2) Multiple choice (2 choice) content questions (question forms include "who", "what", and "where")

3) Content questions which require the listeners to generate the correct response (question forms include "who", "what", and "where")

The sequence of "wh" question forms was adapted from the research of Ervin-Tripp and Miller (1977).

PART III (THE BRIDGING PHASE) builds on the elements of PART II and includes the following extensions:

1) Stories become more abstract, complex, and longer while continuing to be based in personal experience.

2) Content comprehension questions now may include, as appropriate, the forms of "why", "when", and "how".

3) The listening comprehension experience is supplemented with complementary, commercially available reading material with written comprehension questions.

4) Inferential questions are gradually built in.

The organizational structure for the story episodes was adapted from recent research in the acquisition of story grammar (Stein and Glenn, 1979). The macro-structure of each teacher-generated story episode contained the following informational units in the order presented: A setting, an initiating event, an internal plan and/or internal response, an attempt, a consequence and a reaction (see Chart 1). Children's activities were transformed by their teacher into this format daily. The setting serves to establish the story's time and or place, as well as to introduce the protagonist(s) (main character(s). The initiating event introduces the event, situation, or activity which the protagonist encounters. The internal response notes the feeling or thoughts the protagonist has which will lead him to take action. The internal plan, similar to the internal response notes the protagonist's decision regarding any action he will take. The attempt documents what the protagonist does. The consequence reveals the outcome(s) of the protagonist's attempt. The reaction notes the emotional response(s) of the protagonist to the above sequence of events.

The story grammar approach was chosen for the LARC program in an effort to provide children with a logical and consistent frame of reference for organizing information. The research of Stein and Glenn (1978,9) on story grammar suggests that a story's episodic structure corresponds to the child's logical organization of that information in memory. Mandler and Johnson (1977) further note that people develop a story schema; a set of expectations about the internal structure of stories. This schema, which serves to facilitate encoding and retrieval, is constructed from two sources: 1) by listening to many stories, thereby increasing knowledge of the sequence of events in stories (or how they typically begin and end, etc.), and 2) through experience which serves to increase knowledge of causal relationships and various kinds of action sequences (Mandler and Johnson, 1977).

Training in drawing inferences was built into PART III as a result of research findings related to the importance of the inferential process in comprehension (Hansen and Pearson, 1980). Schanks (in Warren, Nicholas and Trabasso, 1975) notes that meaning is primary to comprehension and that the derivation of meaning involves two processes: 1) the application of knowledge and; 2) the drawing of inferences. According to Schanks, inferences serve two functions; to aid an individual to fill in missing slots in the structure, and to serve as a connector, enabling an individual to relate represented events at a higher organizational level. Hansen and Pearson (1980) suggest that given considerable practice, children's ability to draw inferences may improve. They further suggest that if educators were to ask more integrative rather than basic content questions, children might develop a mindset of interpretation as opposed to just attending to the simple recall of facts. Research seems to indicate that young children do have the memory capacity and the ability to draw inferences. Their lack of prior knowledge, however, appears to limit their ability to draw an inference in a specific instance. Since our program is founded on children's personal experiences, it appeared reasonable that inference training would be a logical LARC inclusion. As a theoretical base for this training, we have adapted a taxonomy of inferences employed by children in the comprehension process as proposed by Warren, Nicholas and Trabasso (1978).

It is most important to point out that the object of the comprehension questions asked in PARTS II and III is for the child to recall the critical story elements. It is not the primary intention of the program to teach children to respond to each "wh" question type. Not all the suggested question forms may be employed in every story. Questions are asked as the story content dictates. If, for example, in a particular story a "where" question would not elicit a critical story element, no "where" question is asked.

METHOD AND PROCEDURES

Subjects and Setting

The study was conducted with two groups of communication handicapped children of differing language abilities. PARTS I and II were utilized with six subjects between the ages of five and seven. These subjects attend school in a self-contained classroom at the Communication Disorders Demonstration Program at Montclair State College (MSC) in New Jersey. This group, hereby referred to as the MSC group, present receptive language deficits of between one and three years below expected levels, and expressive language deficits of between two and four years below expected levels. Handicapping conditions such as neurological impairment or mental retardation accompany the language impairment in five out of the six subjects.

PART III of the program was utilized with a group of four children between the ages of nine and eleven. These children attend a class for communication handicapped children in the Princeton Regional Schools, Princeton, N.J. and are mainstreamed for all special subjects. These children, hereby referred to as the Princeton Group, were more advanced in academic achievement and language skills than the MSC Group. Receptive language deficits ranged from one to two years below expected levels. Expressive language deficits ranged from one to three years below expected levels. All of the subjects could decode at a minimum of a mid-second grade level.

PART I - ORIENTING PHASE

The first part of the program was designed to establish the attending behaviors that are prerequisites to listening to a story. Children were trained to sit on chairs without talking while looking at a picture and listening to a story. Their hands were folded to eliminate competing behaviors such as touching other children.

The six children in the MSC Group sat in chairs around a kidney-shaped table facing two adults, the presenter and the recorder. Adults sat in the same positions each day, but children were free to choose their seats. The presenter introduced each session by reminding the children that it was "Listening Time". The behaviors corresponding to the current program step were reviewed. The group was judged to be prepared to progress to the next step when four out of six children performed with 80% accuracy for two consecutive days. Children included in this part were rewarded with potato chips and stickers for appropriate behaviors. The use of these rewards was gradually diminished.

Step 1: "Sit, hands folded, no talking."

The first step entailed an attempt by the presenter to begin each of ten trials per session with all children conforming to the desired behaviors.

One child who had difficulty remaining seated was positioned between the presenter and recorder, which prevented him from standing up. When a child did not follow a direction, his name was called once and the direction was repeated. Following that repetition, all inappropriate behaviors were ignored. The presenter signaled the start of each ten second trial by a nod of her head and a hand motion. The recorder timed each trial and signaled the end. The presenter immediately praised the children who performed correctly by saying their names and "Good sitting and listening", while the recorder marked a + or - for each child on the data sheet. After each trial, the Sticker Chart was presented and each successful child received a sticker to place on the chart, or a potato chip (indicated by "P" on the Sticker Chart). A continuous schedule of reinforcement was used. The children did not know until the end of each trial whether the reward for that trial would be a chip or a sticker. A shaping procedure in which each child received a "Special Gold Sticker" and a potato chip at the end of the session for 50% success was utilized.

Step 2: "Look at the picture"

All procedures followed during Step 1 were continued, but the presenter added the direction, "Look at the picture", as different, large commercially available pictures (Dunn and Smith, 1966; Wing, 1978) were held up for each "Listening Time". When praised, children were told, "Good looking and listening." By the completion of Step 2, children were reinforced for 100% success on a given day.

Step 3: "Listen to the story"

Two thirty to fifty word stories based on the children's experiences in school that day were written in the prescribed story grammar format. A simple picture was drawn to accompany each story. Later the same day, at "Listening Time", the direction "Listen to the story" was added to the prior directions. A revised "Sticker Chart" with spaces for two trials and the "Special Gold Sticker" was utilized. By the completion of Step 3, only stickers and praise were used to reward children following each trial.

PART II - QUESTION PHASE

The second part of the program provided the children with continued exposure to the story grammar format and introduced comprehension questions. Three questions, an Event Question, an Attempt Question, and a Consequence Question were asked following each story. Sample questions of the type the children would be asked about the story were presented to introduce each program Step. In addition to the directions administered in PART I, the children were told, "I'm going to ask you some questions about the story. Listen carefully and think about the story, so you can answer the questions."

After the story was read, the presenter praised children who behaved appropriately, by saying their names and "Good looking and listening", while the recorder marked the Data Sheet (see Chart 2). The picture was removed. Then the Event Question was asked, and an individual was called to respond. The respondent's name immediately followed the question. Since children did not know when they would be chosen, this procedure secured group attention. When the respondent answered correctly, he was praised. When an incorrect response was given, the presenter stated the correct answer. Following the individual response, the question was repeated and a group response was elicited. The presenter cued the group by saying, "Now it's everyone's turn." After asking the question, the presenter's head nodded to signal the group's response in unison. This group response pattern was implemented to provide practice for every child without taking the time for several individual responses and to maintain the group's interest (Engelmann, Osborn and Engelmann, 1969). The question procedure followed each story, and at the end of the session the Sticker Chart was presented.

Step 1: Yes/No Questions

The first question forms introduced were those answerable by a yes/no response, such as, "Did Ben find a new toy in school today? - Yes or No." Occasionally, "Was" questions were used. For example, "Was Steven's job to take attendance? - Yes or No." Children were rewarded with stickers following each story and a "Special Gold Sticker" and a potato chip at the end of the session.

Step 2: Choice Questions

The predominant questions were simple "who" and "what" questions (see Chart 3). Typical questions were, "Who did not have a Speech teacher today? Michael or Howard?", and, "What did Howard want to do? Have Speech or have Music?" "Where" questions were asked infrequently, as place was rarely an important element of the story at this level, since most activities occurred in one classroom. Sometimes the consequence of the story involved going someplace. Then a "Where" question like, "Where did the boys go? Outside or to Gym" would be presented. Following the first story, children received a checkmark on the Sticker Chart. After the second story, children were given a sticker to place on the Chart. Children who met the criteria of 100% success received a "Special Gold Sticker" and a handshake in place of the potato chip.

Step 3: "Wh" Questions - No Choices

Simple "Who", "What", and "Where"questions were asked during Step 3, but the children were not provided with a choice of answers. This required that the

children recall the information from the story and generate a verbal response. Due to the severe expressive language difficulties characteristic of our population, questions were developed that necessitated only one or two word responses. When a child clearly demonstrated knowledge of the correct response through gesturing, that response was accepted and labeled verbally for the child. Now children received checkmarks following each story, and continued to get "Special Gold Stickers" and handshakes at the end of the session. All procedures outlined for the QUESTION PHASE remained the same.

PART III - BRIDGING PHASE

In the third part of the LARC Program, the four children in the Princeton Group listened to stories based on their "hands-on" experiences. The activities were part of an ongoing Science Unit. The stories were longer than those in PARTS I and II, ranging from one hundred to one hundred twenty words and were consistent with the story grammar format (see Chart 4). Children were asked more comprehension questions than the three presented in PART II and a wider variety of question forms were included - "Who", "What", "Where", "When", "How", "Why" (see Chart 5).

On the day following the "Listening Time" story presentation, a written copy of the story with the comprehension questions would be presented to each child. This formed an assignment on the child's individual contract and was read silently and completed independently.

Children participating in this part of the program were rewarded with social praise and the teacher's signature by the corresponding assignment (Language or Reading) on their work contract.

Step 1: Read Story and Answer Written Comprehension Questions

A story about a Science activity was generated by the teacher and presented to the group later in the day at "Listening Time." Children were directed to sit quietly at the round table and listen to the speaker. The teacher paused during the reading if the children were not quiet.

After the story was read, individuals were asked comprehension questions pertaining to each of the following six categories - Event, Response, Plan, Attempt, Consequence, and Reaction. Since four children participated, each child was asked one and two questions, respectively, on alternating days. The teacher recorded responses on a worksheet (see Chart 6), and then transferred them to a Data Sheet (see Chart 7) at her convenience.

The next day, when the story was presented in written form, difficult words were reviewed with the group, and the children then proceeded to complete the worksheet independently. The teacher recorded the children's responses

and then corrected errors on the worksheet with each child. The teacher directed the child to the section of the story containing the answer. If the child was still unable to answer correctly, the teacher supplied the answer.

The group was considered ready to progress to the next step when three out of four children performed with 75% accuracy for two consecutive days on both the "Listening Time" and Reading Comprehension components.

Step 2: Inferential Questions

Two inferential questions were added to the listening and reading comprehension questions (see Chart 8). The inference questions were based on the content of the story. The types of inferences varied from one story to the next. All other procedures remained the same.

Step 3: Complementary Commercially Available Story

Procedures remained the same for the program components described in Steps 1 and 2, but at this time a complementary written story was presented on the day after the children completed the experience-based story worksheet. To increase the children's content bank, the stories elaborated on a concept explored during the "hands-on" activity. The complementary stories were chosen from published supplementary reading materials (Stone and Burton, 1960) already available within the school. The selections consistently included a brief information-giving story, followed by six comprehension questions. These stories and questions did not adhere to the story grammar framework followed in the teacher-written stories and questions.

RESULTS

Data on the children's comprehension abilities was collected before and after the three month pilot study was conducted. Our results indicated that five out of six participants in the MSC Group answered more questions correctly on the Spache Diagnostic Reading Scales, Listening Comprehension Subtest at the 1.6 Grade Level (see Table 2). Fifty percent of the group improved one to two grade levels on the Clinical Evaluation of Language Functions (CELF), Diagnostic Battery, Processing Spoken Paragraphs Subtest (Semel and Wiig, 1980).

The CELF Screening Test (Semel and Wiig, 1980) was administered to the Princeton Group, but the MSC Group was unable to follow the directions as prescribed in the manual. In the Princeton Group, substantial improvement was noted on the Processing section, but not in Production. Percentile ranks on the Processing Section increased dramatically in all cases, while only one child improved slightly in Production (see Table 3).

	TESTS		
SUBJECTS	SPACHE		CELF
	LISTENING COMP. GRADE 1.6		CELF SPOKEN PARAGRAPH
#1 C.A.: 5-8	+3		K / Grade 2
#2 C.A.: 6-7	+5		K / Grade 2
#3 C.A.: 6-4	-1		Below K / Below K
#4 C.A.: 7-9	+3		Below K / K
#5 C.A.: 5-11	+1		K / K
#6 C.A.: 6-7	+2		K / K

TABLE 2

Pre to Post Test changes for subjects trained in PARTS I and II

SPACHE - changes (+ or -) in number of questions answered correctly from pre to post testing

CELF - changes in attained grade levels from pre to post testing

SUBJECTS	DURRELL			CELF SCREENING						CELF SPOKEN PARAGRAPH
	oral reading	silent reading	listen comp.	Tot. Score Pre	Tot. Score Post	Process. Pre	Process. Post	Prod. Pre	Prod. Post	
#1 C.A.: 9-3	+6	+16	+5	32	32	18	22	14	10	GRADE 4-5 → GRADE 8
				22	22	6	23	76	18	
#2 C.A.: 11-6	+14	+17	+14	38	42	26	30	12	12	GRADE 4-5 → > GRADE 10-12
				26	72	44	95	11	11	
#3 C.A.: 10-4	+10	+2	+16	26	38	15	26	11	12	GRADE 4 → GRADE 8
				1	26	1	44	6	11	
#4 C.A.: 9-4	+5	+24	+3	33	37	24	28	9	9	GRADE 4 → GRADE 4
				7	22	21	76	3	3	

TABLE 3

Pre to Post Test changes for subjects trained in PART III

DURRELL - changes (+ or -) in number of questions answered correctly from pre to post testing
CELF SCREENING - number of questions answered correctly and corresponding percentile rank for pre and post testing
CELF SPOKEN PARAGRAPH - changes in attained grade levels from pre to post testing

Three out of four participants in the Princeton Group improved more than three grade levels on the CELF, Processing Spoken Paragraphs Subtest.

On the Durrell Analysis of Reading Difficulty, Oral Reading, Silent Reading, and Listening Comprehension Subtests, all participants in the Princeton Group answered more questions correctly on the post tests. Three out of four children made a minimum gain of one grade level on all subtests.

Observations of additional changes have been detailed in the Discussion Section.

DISCUSSION

This pilot study examined the effects of an experience-based sequential training program in listening and reading comprehension on two groups of communication handicapped children. Relating the results to the specific needs this program was designed to address, the following observations can be made.

PART I of the program effectively trained the prerequisite attending skills for listening, while the primary food reinforcer was easily faded within fourteen training sessions. Children were observed spontaneously using the carrier phrases given as cues in the program to verbally mediate their behaviors during post test administration and in their classroom, when directed to listen. As a result of their internalization of these cues, increased eye contact was observed during the post tests, though no direction to look was given.

A factor affecting the children's attention in the Orienting Phase of the LARC Program was the type of commercial picture presented. Simple, common children's subjects, devoid of action or visual complexity, did not consistently maintain the group's attention. This population initially had difficulty inhibiting their impulse to call out the name of the object when pictures of simple objects were presented. Novel, action-oriented pictures and those of unusual, imaginary characters did not elicit verbal responses as often and secured visual attention more effectively.

The LARC Program utilized a uniform story and question format to assist children in organizing and retrieving critical story elements. Adults with minimal training easily generated stories in the prescribed format using the forms developed for this purpose.

Several interesting observations were made pertaining to the effects of the organization of program content on the MSC group. Though story and question structure remained the same, children achieved a higher rate of success in answering questions about action-oriented stories than about those relating a dialogue. This is probably

due to the more concrete nature of the action-oriented stories. Teachers further reported that children demonstrated a heightened awareness of the need to follow a question with a reply. This was evidenced by their refusal to continue with group discussion when a question remained unanswered and their urging peers to respond when a question was posed. During the latter stages of the Question Phase and post test administration, some children appeared to engage in more reflective thinking behavior, commenting, "Wait, I'm thinking." Children also requested repetition of questions they were unable to respond to initially. These latter two behaviors were not observed during pre-test administration.

During this pilot study, efforts were directed towards determining the most effective technique for training children who repeatedly failed a particular question type. It was not helpful to bombard children with questions they consistently answered incorrectly. Presenting a range of question types to all children on a random basis appeared to provide benefits from peer modeling and more frequently improved the performance of the participants.

As a result of this pilot study, a need for further exploration in the areas of program organization and procedure was determined. First, pre-testing needs to include a measure of the children's ability to answer "wh" questions prior to program implementation. This would enable the authors to determine whether LARC increases the children's ability to answer "wh" questions in addition to recalling story content.

It would be interesting to study the effects of reading the story twice before the children answer the questions, rather than once as in this study. We would also like to explore the effect of keeping the pictures within view while the questions are asked.

The content of the LARC stories was developed from the actual experiences of the participants. This was a tremendously effective motivational tool. Children looked forward to "Listening Time" to see who would star in the story. The main character was always illustrated in accurate attire so he would be recognizable to the group. The children enjoyed simple line drawings with attractive colors, enabling a very amateurish artist (or an average teacher) to quickly draw the pictures on a daily basis.

Children in the Princeton Group were motivated by their active involvement in ongoing experiences related to one unit that continually exposed them to engaging new activities and materials.

LARC was implemented with small groups of children, in classrooms. It was manageable in terms of the numbers of children served and the time allotted. In the pilot study, groups of four to six children were accommodated, and "Listening Time"

sessions ranged from approximately ten to twenty minutes. It was advantageous for two adults (the presenter and recorder) to participate during PARTS I and II, but with modifications it would be feasible for implementation by one adult. PART III was conducted successfully by one adult.

Since LARC involved groups of children in experience-based activities, "Listening Time" was an extension of the classroom's daily activities, rather than an isolated, unrelated part of the school program. Art, cooking, science, social studies, music, gym, and free play activities formed the content of the stories used at "Listening Time".

The group procedures appear to have had unanticipated, positive effects on classroom group dynamics. Teachers reported that children imitated adult models who provided support for children, by reassuring one another with statements like, "You can answer that." These supportive comments were observed to occur more frequently following implementation, particularly in the Princeton Group.

LARC provided systematic bridging procedures to develop both listening and reading comprehension. Children in the MSC Group were functioning at a reading readiness level. It is expected that the consistent structure in the story and question format will give them helpful strategies to apply when they encounter written material.

In PART III the vocabulary used in the stories was introduced during the "hands-on" experiences so children could develop meaningful content-word relationships. The presentation of written stories,with questions that were already familiar to these children from the listening component, dissipated their fears of working independently with written material. Children quickly recognized familiar vocabulary and gained confidence in their ability to complete the task successfully. The repetition of vocabulary in oral and written form resulted in increased use of contextual clues when a difficult word was encountered in the complementary, unfamiliar commercial stories. Finally, writing samples following implementation of LARC were longer and often included setting and reaction statements that were not observed as frequently prior to training. This appeared to be evidence of internalization and application of the story grammar format.

SUMMARY

The results obtained from the pilot study investigating an experiential based story grammar approach to listening and reading comprehension, though far from conclusive, are nevertheless encouraging. The findings support the proposition that

the carefully designed "framework" of LARC is indeed feasible and effective. We have noted, as with any initial programming attempt, that various modifications and procedural adjustments are in order. Results of the study have also raised several interesting issues which support the need for further research in this area. All things considered, it is our judgment that the LARC Program has potential as an effective intervention tool in facilitating the development of comprehension skills.

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LISTENING PROGRAM STORIES DATE: _____ PART: 2 STEP: 1

STORY #_____

1. Set the Stage	When Ben came to school today, he found a new table toy.
2. Note the initiating event	He began to build with the new color squares.
3. Note the internal response or plan	He decided he wanted to look through the red square.
4. Note the attempt	Ben put his face near the red square and looked at the boys.
5. Note the direct consequence	He saw Adam and Howard through the square.
6. Note the reactions	Ben liked to build and look with the new color squares.

1. Event Question	Did Ben find a new toy in school today?	(YES)	NO
2. Attempt Question	Did Ben cut the red square?	YES	(NO)
3. Consequence Question	Did Ben like building and looking with the squares?	(YES)	NO

CHART 1

DATE: _____

PART 2: STEPS: 1-3

CHILD'S NAME	Attending to Story +/-	Question Type E	A	C	Question	Child's Response
STEVEN	+	✓			Did Ben find a new toy in school today?	+
JAMES	+		✓		Did Ben cut the red square?	-
ADAM	+					
MICHAEL	+			✓	Did Ben like building and looking with the squares?	+
BEN	+					
HOWARD	+					

LISTENING PROGRAM STORIES DATE: _____ PART: 2 STEP: 2

STORY #_____

1. Set the Stage	Today is speech day at school.
2. Note the initiating event	But Howard's speech teacher was absent.
3. Note the internal response or plan	Howard wanted to have speech anyway.
4. Note the attempt	But there was no one to work with him.
5. Note the direct consequence	Howard said, "O.K., I'll do some constructions with legos." He built a boat and a building.
6. Note the reactions	He enjoyed working with legos and telling about his work.
1. Event Question	Who did not have a speech teacher today? Michael or (Howard)
2. Attempt Question	What did Howard want to do? (Have speech) or Have music
3. Consequence Question	What did Howard do instead of speech? (Build) or Color

LISTENING PROGRAM STORIES DATE: _____ PART: 3 STEP: 1

STORY # _____

TITLE: A SURPRISE

1. Set the stage	On Tuesday, we had a surprise in our classroom.
2. Note the initiating event	Mr. Brown came to Room 19 with twelve very small quail eggs.
3. Note the internal response	Because he wanted to show us how to hatch them.
4. Note the internal plan	Mr. Brown decided to put the eggs in a clear and orange box called an incubator.
5. Note the attempt	He made sure the wire was plugged in, and told the children to leave it, so the eggs would hatch. Water would be added so that the air would not be too dry.
6. Note the direct consequence	If the air stays hot and wet, the quails will hatch in sixteen days.
7. Note the reaction	Mr. Brown hoped we would take good care of the eggs so they would hatch.

LISTENING PROGRAM STORIES DATE: _____ PART: 3 STEP: 1

STORY # _____

TITLE: A SURPRISE

1. Event Question	Who came to visit our classroom? Mr. Brown.
2. Response Question	Why did he bring twelve small eggs to the classroom? Because he wanted to show us how to hatch them.
3. Plan Question	Where did Mr. Brown decide to put the eggs? In the incubator.
4. Attempt Question	Why would water be added? So the air would not be too dry.
5. Consequence Question	When would the eggs be ready to hatch? In sixteen days.
6. Reaction Question	What did Mr. Brown hope the children would do? Take good care of the eggs.

LISTENING PROGRAM STORIES DATE: _____ PART: 3 STEP: 3

STORY # _____

TITLE: THE CHICKS COME BACK

1. Event Question	Who brought back the chicks to Room 19? Andy.
2. Response Question	How did our class think our chicks were going to look? Different.
3. Plan Question	What did the class do first? Took the chicks out of the brooder.
4. Attempt Question	Why did we take the chicks out of the brooder? Because we wanted to weigh them.
5. Consequence Question	Where did the chicks have combs? On their heads.
6. Reaction Question	How did Andy feel when the class saw the changes in the chickens? Excited.
7. Inference Question 1	On what day of the week did Andy bring the chicks back for a visit? Monday.
8. Inference Question 2	Do chicks grow faster than babies? Yes.

CHART 6

LISTENING PROGRAM STORIES DATE: _____ PART: 3 STEP: 3

STORY # _____

TITLE: THE CHICKS COME BACK

		SANDRA	WILL	DAVID	JIM
1. Event Question	1. Who brought back the chicks to Room 19? Andy				
2. Response Question	2. How did our class think our chicks were going to look? Different				
3. Plan Question	3. What did the class do first? Took the chicks out of the brooder.				
4. Attempt Question	4. Why did we take the chicks out of the brooder? Because we wanted to weigh them.				
5. Consequence Question	5. Where did the chicks have combs? On their heads				
6. Reaction Question	6. How did Andy feel when the class saw the changes in the chickens? Excited				
7. Inference Question 1	7. On what day of the week did Andy bring the chicks back for a visit? Monday				
8. Inference Question 2	8. Do chicks grow faster than babies? Yes				
TOTALS	CHART 7				

DATE: _____

PART 3

CHILD'S NAME	Listening Comprehension Child's Response(s) +/- Question Type								Reading Comprehension Child's Response(s) +/- Question Type							
	E	R	P	A	C	R	I^1	I^2	E	R	P	A	C	R	I^1	I^2
SANDRA																
WILLIAM																
DAVID																
JIM																
GROUP TOTALS									GROUP TOTALS							

CHART 8